

**City of Seattle**  
**Emergency Preparedness**  
**July 2003**

*Redacted Version*

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# EXECUTIVE SUMMARY

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More than 10 years ago, Seattle recognized the importance of a formal Citywide emergency preparedness program. Seattle has taken an “all-hazards” approach to emergency planning, which provides the City with the flexibility to prepare for and respond to any type and scale of emergency – be it natural or man-made. The September 11, 2001 terrorist attacks raised awareness of, and created more urgency about, the importance of emergency preparedness.

One of Mayor Greg Nickels’ top priorities is to make Seattle the most prepared city in America. When he took office in 2002, he created the Emergency Preparedness Bureau within the Seattle Police Department, initiated the Business Emergency Network, updated the city’s readiness and response plan, and began a review of every individual department’s emergency response plans. With strong community partnerships, an emphasis on training, and innovative programs, Seattle is a nationally recognized leader in emergency preparedness.

- The Federal Emergency Management Agency (FEMA) uses Seattle’s Disaster Readiness and Response Plan as a model for cities of similar size.
- Seattle Project Impact has received national recognition for promoting disaster-preparation programs. In 1997, the City of Seattle was selected by FEMA as one of seven pilot Project Impact communities. There are now more than 200 communities nationwide.
- An award-winning program, Seattle Disaster Aid and Response Teams (SDART), provides citizens with materials and training to help them respond to less critical needs when emergency personnel are responding to life-threatening situations. If individual residents are prepared to assist each other during these crucial hours, lives can be saved, property can be spared, and people can recover more quickly. SDART helps residents to organize into six disaster response teams: communications, damage assessment, first aid, safety and security, light search and rescue, and sheltering and special needs. SDART recognizes that a well-prepared community becomes a resource following a disaster.
- In 2002 Seattle began working with several local business organizations to create the Business Emergency Network (BEN) to assist businesses in their response to and recovery from an emergency. BEN enables businesses to receive information directly from the City’s Emergency Operations Center and provide feedback about what they need. BEN is designed to reach businesses throughout the Central Puget Sound and become a regional network for sharing information and resources among public and private sector organizations.
- Seattle works effectively with its regional, state and federal partners in emergency preparedness. Working with King County and local cities, Seattle has helped to develop a regional disaster plan and is participating in the King County Emergency Management Advisory Committee. Seattle also works closely with other jurisdictions to ensure effective mutual aid in an emergency.
- Seattle’s Disaster Management Committee (DMC) represents the different emergency support functions needed during a disaster. The committee meets monthly to coordinate efforts and to measure and evaluate progress in each of the emergency support functions. During an emergency, representatives of each support function report to the City’s

Emergency Operations Center to respond to the public safety, public works, public information, public health, human services, and recovery needs of the City.

- In May 2003, Seattle participated in TOPOFF2, a federally mandated counter-terrorism exercise. Seattle was one of two cities in the country invited to participate in this major training event. TOPOFF2 included 36 hours of continuous, live, full-scale exercise play, in the field and at the City's Emergency Operations Center. Hundreds of police, fire, health, and other emergency responders participated.

This report is intended to help the Mayor assess recent efforts to strengthen the City's emergency preparedness. It serves as a checklist of resources and a planning guide for further enhancements. The report includes sections on the City's Emergency Preparedness Bureau; intelligence, planning, and training; department emergency preparedness efforts; response; community outreach; recovery; and inter-jurisdictional partnerships. This report is just one of a continuing series of efforts to improve the City's ability to respond to, and recover from, disasters.

### **Emergency Preparedness Bureau**

Emergency Preparedness Bureau personnel help to train individuals, businesses, schools, neighborhood organizations and City employees to be ready for any emergency. They coordinate the development of emergency response plans at a citywide and departmental level. They also serve as liaisons between the City and its regional, state and federal emergency management counterparts.

### **Planning and Training**

Intelligence capabilities, planning and training are essential for preparing for and exercising control over City responses to special events and emergencies. The Emergency Preparedness Bureau has revised and updated the City's *Disaster Readiness and Response Plan*. This plan guides the City's response to disasters. It also serves as a guide to enhancing security and directing resources in response to changes in the national threat level or significant local events.

Vulnerability assessments are a top City priority. Vulnerability assessments for vital City infrastructure began immediately following the Sept. 11, 2001 terrorist attacks. While previous assessments had been performed, mostly to prepare for natural disasters, those conducted in the past two years have focused much more on hardening facilities against terrorism. City employees have been trained in conducting vulnerability assessments and are working with City departments to conduct a comprehensive citywide vulnerability assessment. Capital improvements and operational changes to increase the security of City infrastructure are ongoing.

The City recently participated in Top Officials 2 (TOPOFF2) – a nationwide, multi-agency, multi-jurisdictional, "real-time," limited-notice weapons of mass destruction response training exercise. The event occurred in May 2003 and was designed to prepare senior government officials to effectively respond to an actual terrorist attack. Seattle and Chicago were the only two cities in the country invited to participate in this major training event. Short of an actual attack, such exercises are the best way to train responders, gauge preparedness, and identify areas for improvement.

## **Emergency Response**

The City has a variety of resources that can respond in an emergency situation. The Fire Department has 1,000 sworn personnel and the Police Department has 1,220 sworn officers for a combined pool of more than 2,000 first responders. In addition, specialized teams with specific areas of expertise increase the City's ability to respond to a variety of situations: the Bomb Squad, the Dive Rescue Team, the Harbor Patrol, the Hazardous Materials (HazMat) Team, the Marine Emergency Response Team, Medic One, the Metropolitan Medical Response Team, the SWAT Team, the Technical Rescue Team, and the Urban Search & Rescue Team. In addition to public safety personnel, public works, public health, and human services employees have been trained to respond in emergencies.

The City is also able to draw on specialized equipment and facilities, including: the E-911 Center, the Emergency Operations Center, department operations centers, the 800 MHz Radio System, and personal protective equipment for police officers and firefighters. Seattle is one of 11 sites across the country that participates in the federal "Prepositioned Equipment Program" or PEP. This program positions equipment caches in strategic locations across the country. The caches consist of standardized equipment pods with personal protective equipment; chemical, biological and radioactive detection instruments; medical supplies and equipment; search equipment; decontamination equipment; and logistics equipment. The 11 PEP sites will be available to respond within six hours to an incident in any major population area across the continental U.S.

## **Community Outreach**

An important part of emergency preparedness is to involve the community and local businesses. Three of Seattle's outreach programs include the Seattle Disaster Aid and Response Teams (SDART), Project Impact, and the Business Emergency Network (BEN).

The goal of the SDART program is to train people to attend to non-life-threatening situations for the three days following a serious disaster, when emergency responders – police, fire, and medical personnel – may be consumed with responding to life-threatening emergencies. To date, more than 350 neighborhood groups have been trained and the program is being expanded to train additional neighborhood groups.

Seattle Project Impact is a public-private partnership that makes our community more resistant to the damaging effects of natural disasters, primarily earthquakes. Seattle Project Impact has a number of successful programs including:

- **Regional Home Retrofit:** helps homeowners strengthen property that is susceptible to structural damage from earthquakes. Partnering with the Phinney Neighborhood Association, more than 2,700 homeowners and 407 contractors have been trained through the University of Washington, resulting in more than 500 retrofitted older homes.
- **School Retrofit:** removes non-structural and classroom hazards from public schools to keep students safe. Forty-six schools have removed overhead hazards, such as porcelain flush tanks. In nine other schools, volunteers joined with custodial staff to secure electronic equipment such as TVs and computers that could fall and pose a hazard to students. Three schools have installed automatic gas shutoff valves.

- **Hazard Mapping**: studies geologic hazards and produces better landslide and earthquake hazard maps for the City to use in developing sound land use policy. Government and businesses are already using the information.
- **Disaster Resistant Businesses (DRB)**: educates businesses about their disaster exposure, how to minimize their potential for economic loss, and how to maximize their ability to remain operational. DRB has partnered with Neighborhood Business Councils and Chambers of Commerce to hold informational forums for more than 100 Seattle businesses and is developing a toolkit to help businesses create their own disaster preparedness plans.

In April 2003, the City of Seattle initiated the Business Emergency Network (BEN) to assist businesses in their response to and recovery from an emergency. The City works in partnership with the Greater Seattle Chamber of Commerce, the Building Owners and Managers Association of Seattle and King County (BOMA), and other business organizations to develop this program. The BEN network participated in the TOPOFF2 exercise. Messages were channeled from the City's Emergency Operations Center to members of the BEN hub and were then distributed to thousands of businesses throughout King County. During the exercise, participants were able to submit questions directly to the City of Seattle Emergency Operations Center and receive responses in real time.

### **Recovery and Mitigation**

The quick restoration of City services helps residents, local businesses and the City return to normal following a disaster. The recovery process includes pre-event planning and preparation, response and emergency repair work, damage assessment, project design and construction, and cost recovery.

Since 1990, Emergency Management has coordinated reimbursement as part of the City's disaster recovery process. Between 1990 and 2000, Seattle Emergency Management billed, collected and disbursed more than \$15.8 million in public assistance from FEMA on behalf of the City of Seattle. In addition, between 1996 and 2000, the City of Seattle received \$25 million from the Federal Highway Administration for road repair.

Strengthening structures and systems to minimize future damage is referred to as "mitigation." Between 1995 and 2000, the City received a total of \$2.9 million in mitigation grants from FEMA and the State of Washington. Seattle Emergency Management serves as a liaison between the City, state and FEMA on these projects. The City received partial funding for the Duwamish Head Stabilization Project to prevent landslides, fire station seismic retrofits, and bridge seismic retrofits.

Above and beyond FEMA-funded mitigation projects, City departments have initiated a range of other innovative projects to protect the community from disaster:

- Meadowbrook Detention Pond to reduce flooding in the Thornton Creek Watershed;
- Fast-Track permitting for home seismic retrofits;
- Base isolation for the Myrtle Street water tanks for seismic safety;
- Protecting electricity transmission towers at Boulder Creek;
- Steep slope retaining walls;

- Landslide hazard mapping; and
- Dam safety improvements

### **Regional, State and Federal Cooperation**

The City is cultivating regional partnerships on a variety of fronts. Examples of regional and state partnerships include:

- Local Emergency Planning Committee (LEPC);
- Regional planning with King County;
- King County Emergency Management Advisory Committee;
- Partnership with the skilled trades industry;
- All Seattle Project Impact programs especially Regional Home Retrofit
- Public health and hospitals; and
- Washington State Committee on Terrorism & Anti-Terrorism Information Center.

Some of the national programs the City participates in include:

- Center for Disease Control Partnership;
- Gilmore Commission;
- Joint Terrorism Task Force;
- Inter-Agency Board for Equipment Standardization and Inter-Operability;
- Local integration of cities with NARAC (LINC);
- Kennedy School of Government – Executive Session on Domestic Preparedness;
- National Institute of Justice – Project Responder Senior Advisory Group; and
- Senior Advisory Group for Law Enforcement.

### **Federal Funding**

On April 8, 2003, the federal Department of Homeland Security announced that Seattle was one of only seven cities across the country to receive funding to help the City prepare for and respond to threats or incidents of terrorism. Seattle will receive \$11.2 million of the total \$100 million the Department awarded to cities. The money will be disbursed directly to the City. The Department of Homeland Security chose the cities based on several factors including population density, critical infrastructure and threat or vulnerability assessment. On May 14, 2003, the Department of Homeland Security awarded Seattle an additional \$18.18 million; the purpose of the grant funds is to enhance the security of urban areas. Money from this grant will be disbursed to the State and then the State will distribute it to Seattle and its contiguous counties and emergency mutual aid partners.

The City of Seattle spent \$6.6 million on homeland security through 2002 and expects to spend \$7 million in 2003. Projects included:

- \$1.4 million by City Light to improve security measures at dams, substations, and headquarters;
- \$1.2 million by the Seattle Police Department to provide increased security at federal buildings and airports; bomb threat call-outs; protection of bridges, shorelines and tunnels; and homeland security equipment and planning;
- \$1.2 million by the Seattle Fire Department to deploy additional staff for emergency units and reconnaissance teams; and

- \$1.2 million by Seattle Public Utilities to increase patrols around facilities, security response and planning, and various capital improvements to enhance security at its facilities.

## **EMERGENCY PREPAREDNESS BUREAU**

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The Seattle Emergency Preparedness Bureau (EPB) of the Seattle Police Department coordinates citywide disaster preparedness, response, recovery and mitigation. It places an emphasis on individual and community preparedness, and provides a key liaison function between the City and its regional, state and federal emergency management counterparts.

The responsibilities of the Emergency Preparedness Bureau include:

- Maintaining the Emergency Operations Center
- Working with Departments to Develop Disaster Plans
- Educating the Public
- Working with Departments to Protect City Infrastructure
- Managing Outside Assistance
- Planning Emergency Exercises
- Directing Seattle Project Impact and Seattle Disaster Aid and Response Teams
- Training City Staff

The EPB is comprised of two sections: the Emergency Management Section and the Homeland Security Section.

The Emergency Management Section is responsible for preparedness, response, mitigation, and recovery. The 2003 budget added new positions to improve the City's outreach to communities and businesses. In addition, in 2003, the Bureau will fill a new position - Director of Emergency Operations. This position will directly oversee the activities of the Emergency Management Section, while coordinating interaction with the Homeland Security Section. In particular, the new Director will coordinate the Disaster Management Committee.

The Homeland Security Section is composed of two squads: the Seattle Police Operations Center (SPOC) Squad and the Preparedness Squad. The SPOC Squad is responsible for coordinating the planning for all large preplanned deployments of police personnel. The Preparedness Squad is composed of several personnel on loan from other units and was planned for the TOPOFF2 exercise. Since completion of TOPOFF2, this squad is focusing on mutual aid, liaison with outside agencies, coordinating vulnerability/threat assessments, and coordinating the activities of personnel assigned from other City departments.

### **Emergency Operations Center (EOC)**

In 1991, Seattle opened its Emergency Operations Center (EOC) to serve as the City's central command center, enabling City officials and other support agencies to provide a coordinated response to major emergencies and disasters. The EOC now functions as part of the Seattle Emergency Preparedness Bureau of the Seattle Police Department to coordinate citywide disaster



preparedness, response, recovery and mitigation. The Center is co-located with Fire Station 2 and the Seattle Fire Department's Fire Alarm Center in the Belltown neighborhood. Since it first opened, improvements have been made, including reconfigured office areas for greater efficiency, and installation of multiple radio, telephone and electronic systems to ensure that interruptions to these communication systems will not cripple the City's ability to respond in a crisis. While some seismic work has been performed at the facility, it does not meet FEMA's standards for a strengthened facility, the standard adopted by the City for its essential facilities. In addition, at 8,095 square feet, it is undersized to carry out its mission. The Fire and Emergency Response Levy, which will be on the ballot in November 2003, includes \$16.6 million for a new EOC; this funding includes the cost of land purchase, design and construction of a new facility.

### **Disaster Management Committee (DMC)**

The Disaster Management Committee (DMC) is the mayor's advisory body for the City's interdepartmental emergency management strategy. Appointed by the mayor, members include a DMC chairperson and coordinators representing the different emergency support functions needed during a disaster. At the beginning of each year, the membership crafts the City's emergency management work plan and submits it to the mayor for approval. The group meets monthly to coordinate efforts and to measure and evaluate progress in each of the emergency support functions.

The DMC organization mirrors the command system and staffing patterns used in the City's Emergency Operations Center. In actual EOC activations, this model has proven to foster clear communication, effective cross-disciplinary working relationships, and broad-based confidence in the City's emergency management system. The committee represents each of the nine Emergency Support Functions (ESFs) that constitute the EOC. Each ESF has responsibility for oversight of one critical aspect of emergency management. For example, ESF2 is Police and is responsible for monitoring police activities and coordinating those with other City functions to maximize the City response to the incident. Other ESFs are Emergency Management, Public Works, Fire, Public Information, Logistics, Public Health, Human Services, and finance, personnel, recovery, and unmet needs. During emergencies, each DMC committee member serves as the coordinator for a designated ESF position in the EOC. The importance of the DMC in preparing the City for, and getting it successfully through, a disaster cannot be stated strongly enough.

### **Emergency Preparedness Goals**

The EPB has identified 10 goals that will enhance the City's emergency preparedness and its ability to respond effectively during critical events or disasters and their aftermath.

1. Incorporate defense against terrorism into Seattle's existing emergency preparedness strategy.
2. Enhance the EPB's ability during an emergency to accurately and effectively communicate among City departments, between jurisdictions, with the media, and most importantly with the public.

3. Enhance the system to provide comprehensive analysis and support to the mayor, mayoral staff, department heads, and the city council on preparedness, mitigation, response, and recovery issues.
4. Coordinate the completion of a comprehensive vulnerability and threat assessment for all City infrastructure.
5. Facilitate ongoing emergency preparedness training for all City employees.
6. Develop a Citywide staffing and equipment matrix for use by every City department in support of the EOC in disaster response.
7. Facilitate the incorporation of the federal threat-level notification system into each City department's emergency operations plan and ensure continuity between the plans.
8. Expand the SDART, Project Impact and BEN programs.
9. Establish the EPB as the City point of contact and liaison with federal, state, and local agencies on emergency preparedness issues, including the search for grants.
10. Serve as a central point for reviewing grants or other revenue sources and new laws, particularly those pertaining to public disclosure.

## INTELLIGENCE, PLANNING & TRAINING

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Intelligence capabilities, planning and training are essential for preparing and exercising positive control of City responses to special events and emergencies of all sorts.

### **Intelligence**

The SPD Criminal Intelligence Section is responsible for production of intelligence regarding terrorism and other criminal activity that pose a threat. The work of this section provides the City with an indispensable capability to effectively address law violations that threaten public safety. New and expanded security capabilities of other City departments add to both our intelligence resources and to our overall security.

### **Planning**

#### **Comprehensive Emergency Management**

The City has taken significant steps to both expand and improve emergency management. This effort began with a complete revision of the City's *Disaster Readiness and Response Plan*. This plan is the operational guide for the City's all-hazards response to disasters. It is used by FEMA as a model for other cities. Complementing this effort, every emergency support function has updated its portion of the Plan. Individual City departments are also updating their own emergency plans.

#### **Critical Infrastructure Security Plan**

As a response to terrorism, identifying and creating a comprehensive plan to protect critical City infrastructure is a top priority.

***Five lines of text redacted. This record has been prepared, assembled or is maintained to prevent, mitigate or respond to criminal terrorist acts. This portion of the record is a specific and unique response and deployment plan regarding the Critical Infrastructure Security Plan. Public disclosure of this record would have a substantial likelihood of threatening public safety. This portion is exempt from disclosure under RCW Section 42.17.310(1)(ww) of the Public Disclosure Act, RCW 42.17. 250 et seq.***

### Vulnerability Assessments

Vulnerability assessments are a top City priority. These assessments help to focus resources on strengthening the City's infrastructure - such as water supply systems, power supply systems, transportation systems, and technology systems – to develop capital improvements and operational changes to help protect against and/or mitigate the effects of a terrorist attack.

Important steps have already been taken by many departments, including Seattle Public Utilities and City Light, to complete comprehensive vulnerability assessments. These assessments provide a method for prioritizing improvements to facilities and enhancing operations to safeguard some of the City's most critical functions. These assessments have also helped to develop protocols with first responders to improve the umbrella of protection over the City's most important facilities. The EPB has begun work with Seattle Public Utilities to develop response protocols to better protect key City facilities from potential threats (e.g., enhanced protection of Seattle's water supply).

During the balance of 2003, federal grant funds now awaiting distribution will be used to continue training City employees and to establish Vulnerability Assessment Teams. The Bureau has already begun initial training in vulnerability assessments. These teams, which will be comprised of staff from multiple disciplines from several City departments, will establish the standard for completing a consolidated vulnerability assessment for the City. This new capability, added to the assessment work already accomplished, will move Seattle markedly closer to comprehensive protection of its infrastructure.

As a regional partner in disaster preparedness, the City will share this capability with other local agencies seeking to complete their own vulnerability assessments. Several important City facilities lie outside the city limits and may even be adjacent to infrastructure belonging to another jurisdiction. The ability to do this work regionally will be of benefit to all.

### City of Seattle Mitigation Plan

In 2003, the City received a grant to complete a new FEMA requirement for a comprehensive mitigation plan. The planning is underway and will be completed by February 2004, and will be a basis for future FEMA mitigation money. Without the adopted mitigation plan, the City is ineligible for future FEMA mitigation funds after November 2004.

### **Training**

Seattle's Disaster Readiness and Response Plan provides an operational road map to effective emergency preparedness and response. However, reading it on paper and achieving it in the real world are two very different matters. Training exercises are key to effectively responding in a

disaster. As part of its contract with the Washington State Emergency Management Division (EMD), the City agrees to conduct a full-scale exercise every four years and a functional exercise in each of the intervening years.

### TOPOFF2

Top Officials 2 (TOPOFF2), held in May 2003, was a nationwide, multi-agency, multi-jurisdictional, "real-time," limited-notice weapons of mass destruction (WMD) response exercise. It was designed to better prepare senior government officials to effectively respond to a terrorist attack. Seattle was one of only two cities in the country invited to participate in this major training event (Chicago is the other city). Short of an actual attack, such exercises are the best possible way to train responders, gauge preparedness, and identify areas for improvement.

This exercise gave the City the opportunity to:

- Establish and maintain life safety operational zones during a radiological event;
- Test the operational capabilities of the Emergency Operations Center, Police, Fire, Public Health, and Hospitals in a radiologically contaminated environment;
- Test the effectiveness of the Unified Incident Command System;
- Demonstrate site security, containment, and evacuation in a major incident;
- Demonstrate coordinated and consistent public information capability; and,
- Demonstrate effective resource management.

Emergency Public Information played a key role in the exercise. City public information officers (PIOs) spent months preparing for the exercise, receiving instruction in the effects of radiation, developing prepared messages, reviewing emergency public information procedures, and coordinating with regional, state and federal partners. Given the current world situation, the bulk of this work directly prepares City PIOs for potential real-world events. The City continues to fine-tune communication procedures and protocols with other jurisdictions and conducts regular exercises to maintain training levels.

The TOPOFF2 Cyber-Exercise was a series of events in which the City of Seattle, King County, Port of Seattle and State of Washington planned and tested their joint response to terrorist attacks against those agencies' computer systems and networks. Between November 2001 and May 2003, the government agencies developed a joint response plan to cooperate in the event of such a cyber-terrorist attack. The Institute for Strategic Technology Studies conducted two training seminars and held an exercise in May 2003 to test the response plan.

TOPOFF2 tested the City's ability to communicate effectively during a catastrophic incident and to work in partnership with allied agencies at the regional, state, and federal levels. Lessons learned from the TOPOFF2 planning process, and the full-scale exercise, provided lasting benefits, as well as issues for ongoing preparedness training for the City and its regional, state and federal partners.

### Fire and Police Departments

The Seattle Fire and the Seattle Police departments are working together to improve their partnership. Senior management teams from both departments meet regularly to address common public safety issues and develop effective protocols, including unified command and

planning, response to violent incident and scene security, joint evaluation of incidents, marine and dive operations, and community involvement.

Integrated training between departments is ongoing in areas that include the incident command system, marine and dive operations, and hazardous materials response (including chemical and biological agents). The partnership between the Police Department's Bomb Unit and the Fire Department's Hazardous Materials (HazMat) Unit is an example of how the two departments support and complement each other. The Police and the Fire departments have established a dual response protocol for responding to clandestine methamphetamine labs and to "white powder" incidents. The response starts from the moment the call is received with dual dispatch to both police and fire. The Bomb and HazMat Units then respond together to the incident.

Both departments are committed to this important partnership and are examining additional opportunities to better integrate training, determine common equipment standards, jointly purchase equipment, improve communication protocols, and better inform and prepare the community on public safety issues, including emergency preparedness.

#### Incident Command System (ICS) Seminars

The Seattle Police Department is hosting bi-weekly Incident Command System training seminars where complex tactical scenarios test commanders with real or near-real situations in a risk-free environment. The seminars are open to participation by Fire personnel, and other invited guests with specific expertise. These seminars will improve interdepartmental response, communications and cooperation, and will better prepare first responders for a variety of life-threatening command challenges.

#### Departmental Training

Individual City departments are training employees to respond to emergency situations. These programs range from earthquake preparedness to response protocols for field employees and call center staff. For example, Seattle Public Utilities (SPU) conducts regular tabletop exercises to coordinate response to potential water contamination incidents with other agencies. In addition, SPU staff have been trained to identify, route, track and report customer contacts that may pose a threat to the utilities, customers, infrastructure or general population.

## **DEPARTMENT PLANS**

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The following section highlights some of the preparedness, recovery and response plans for nine of the City's departments: City Light, Fleets & Facilities, Human Services, Information & Technology, Neighborhoods, Parks & Recreation, Seattle Center, Seattle Public Utilities, and the Department of Transportation.

#### **City Light**

Created by the citizens of Seattle in 1902, Seattle City Light provides electric power to more than 345,000 residential, business and industrial customers in the City of Seattle and neighboring suburbs. Its service area of 131 square miles includes the cities of Seattle, Shoreline, Burien,

Tukwila, SeaTac and parts of Lake Forest Park. It is the nation's seventh largest utility in terms of customers served.

City Light has a comprehensive Emergency Operations Plan focused on "normal" emergencies like power outages, floods, fires and vandalism, not on acts of terrorism. City Light has completed an internal vulnerability assessment on its strengths and weaknesses with particular focus on responding to a terrorist attack. As a result of this assessment, City Light is working on capital improvements at its hydroelectric facilities.

To better prepare for terrorism, City Light hired a security consultant to conduct a vulnerability assessment of its functions. This report will be completed in 2003. Based on the report's recommendations, City Light will then target funding to improve its security and preparedness. Seattle City Light is also working with the Emergency Preparedness Bureau to develop a plan for rapid response to intrusions at City Light facilities.

Additional actions to improve the utility's preparedness include:

- Creation of a new security manager position to oversee the utility's security operations.
- Increasing patrols at the substations when on alert.
- Working with Seattle Fire and Seattle Police on new procedures for the emergency isolation of substations.
- Developing and reviewing system restoration plans in the event of major system problems including the potential for outages caused by terrorist activities.
- Improving security for City Light's electronic monitoring and computer systems.

City Light is working on a number of training and preparedness measures such as:

- Annual ongoing training events and emergency action plans at the hydroelectric dams.
- Training exercises for the South Fork Tolt River and the Cedar River watersheds (in coordination with Seattle Public Utilities).
- Training all employees to be alert for suspicious incidents.
- Working with other regional utilities to develop drills for total system blackout restoration plans.
- Participating in TOPOFF2. This training was of particular value to City Light since its experience has primarily been in responding to natural disasters.

### Recovery

***Four lines of text redacted. This record has been prepared, assembled or is maintained to prevent, mitigate or respond to criminal terrorist acts. This portion of the record is a specific and unique response and deployment plan for detection of power outages following or related to an event. Public disclosure of this record would have a substantial likelihood of threatening public safety. This portion is exempt from disclosure under RCW Section 42.17.310(1)(ww) of the Public Disclosure Act, RCW 42.17.250 et seq.***

City Light's priorities for restoring power are public safety and the ability to restore substations and feeders that will provide power to the largest number of customers possible in the shortest amount of time. This includes restoration of power to hospitals and other key government

agencies with responsibilities for emergency response. By law, hospitals and critical care facilities are required to have back up emergency generators and to have procedures in place to activate these back systems. All other outages are restored as soon as possible including smaller outages to transformers or individual residences.

The utility is also aware of the cost of outages for industry and large commercial customers. Procedures are in place for City Light to work directly with large customers, so the utility can restore their power as quickly as possible.

Radio links have been established in the event of power outages and loss of regular phone service between the System Control Center and a number of key emergency response agencies including Harborview Medical Center (the region's designated trauma center), Seattle Police, Fire, and the City, County and State Emergency Operation Centers.

Responding to emergencies caused by natural disasters is part of City Light's regular business. City Light employees have much experience responding to both small- and large-scale problems such as those caused by wind and snow storms, car accidents involving utility poles, equipment vandalism or excavations of underground lines. Redundancies built into the system ensure that the utility could lose a major piece of the system and still be able to deliver electricity to customers. The vulnerability assessments will strengthen City Light's ability to prepare for emergency situations.

### **Department of Construction and Land Use**

Late in 2002, the Department of Construction and Land Use (DCLU) completed the latest update of its Emergency Response Plan. This version incorporates lessons learned from previous disasters (1996-97 landslides and the 2001 Nisqually Earthquake), and is designed to be consistent with the newly-updated Citywide Disaster Readiness and Response plan. DCLU's plan establishes an emergency response branch of DCLU flexible enough to accommodate emergencies of different sizes. The plan also allows the department to balance levels of service for permit applicants who may be unaffected by the emergency. Training sessions have been held for all DCLU managers.

DCLU is also in the process of updating its systems for "everyday emergency" calls – how to get DCLU staff to the scene of a smaller-scale emergency (e.g. a car losing control and running into a building) at the request of another City department. Training has been completed on new equipment and callout lists are being updated.

### **Fleets and Facilities Department**

The Fleets and Facilities Department (FFD) is responsible for City-wide logistical support during any disaster that affects the City. In support of that effort, FFD has worked with other City departments and some non-City agencies to prepare the Emergency Support Function (ESF-7) Logistics Annex, which includes Facilities, Transportation, Communications, Resource Acquisition and Personnel. The ESF-7 Annex was recently updated and will be distributed to other departments during the second quarter of 2003.

FFD participated in the TOPOFF2 exercise in May and was actively involved in providing logistical support for this exercise. FFD recently set up a new Logistics Operations Center for the

departments it works with in the basement of the Justice Center; TOPOFF2 was its inaugural activation.

FFD works closely with its tenants and other customers to ensure there is adequate security in the downtown buildings and elsewhere (e.g. police precincts and fire stations). A full-time security manager for City facilities is augmented by private security staff to provide 24/7 coverage of downtown City facilities. These security guards are also complemented by security cameras in a number of the downtown locations.

FFD provides training for floor wardens in how to respond to various emergencies, whether man-made or natural disasters. They also conduct training drills in the downtown buildings on a regular basis. These drills have come to include more than fire and earthquake drills, including discussion about what to do if there is a terrorist threat or incident in a City building.

FFD has worked closely with the Seattle Police Department and the Seattle Fire Department, as well as other departments, to perform long-range security assessments of all the City facilities for which it is responsible. The Police long-range plan includes the new West and Southwest Precinct Stations, the Justice Center, and Park 90/5 (a complex on Airport Way that houses Parking Enforcement Officers, the FFD Facility shops and number of other functions). This plan is nearing completion. A similar long-range plan is currently being developed for Fire facilities which will include a new EOC, fireboats, a joint training facility, new headquarters and upgrades to a number of fire stations. Many of these facility upgrades have incorporated emergency response measures, such as emergency backup power, and improved security measures. FFD has also reviewed other new City facilities (such as the new City Hall) to ensure that adequate seismic, security, and emergency backup systems are in place.

### **Human Services Department**

The Human Services Department's (HSD) emergency preparedness work has been done on two broad levels. The first builds partnerships to serve low income members of the community. The second improves information and assistance to HSD employees.

#### **Managing Citywide Shelter Function During an Emergency**

HSD is responsible for coordinating any required food or emergency shelter response required in a disaster. HSD will work with the American Red Cross, the Parks Department and other appropriate nonprofit service providers as needed to help establish necessary food and shelter assistance to persons displaced by an emergency.

#### **Coordinating the City's Winter Shelter Response Plan**

Working with other City departments and nonprofit providers, HSD coordinates the winter response plan to provide additional shelter capacity for homeless people when certain life threatening weather conditions exist.

#### **Providing Direct Services for Elderly and Vulnerable Residents**

HSD provides direct case management assistance and oversight to elderly and other vulnerable Seattle residents through its Division of Aging and Disability Services. HSD has trained both the direct service staff and the community home care workers to help clients develop personal



disaster plans including methods for determining an individual's vulnerability and ways to address those vulnerabilities in times of crisis.

#### Providing Information and Assistance to Employees.

HSD is making information available to its staff about ways to prepare for emergencies and has identified resources available to them in time of emergency. HSD Information Technology staff have taken measures to protect the security and confidentiality of sensitive information in HSD databases. These measures include regular backups, restricted access to information, and encryption of data when being transmitted by insecure methods (eMail or IP). These precautions ensure that technology will be available to our staff to help city residents following a disaster.

#### Department of Information Technology

The City of Seattle's critical infrastructures and essential services are dependent on complex, integrated computer systems and telecommunications networks. This dependency creates a range of potential vulnerabilities that could be exploited by those who are motivated to harm the residents of Seattle as well as by large scale natural disasters.

The Department of Information Technology (DOIT) has a two-pronged approach in preparing for emergencies.

1. Ensure that the phone, computer and radio networks are all operable after a disaster. DOIT has conducted vulnerability assessments and developed mitigation plans in the event of an emergency. Examples of the preventive measures taken include:
  - DOIT maintains a private telephone network with 11,000 phone lines for the City government with numerous switches located in different buildings throughout the city. This redundancy allows the system to continue operating even if one switch is taken out. This internal network will operate even if public telephone networks are damaged or jammed with calls. The City also owns and maintains its own fiber-optic cable network.
  - DOIT regularly backs up its major computer systems and sends the tapes to a secure off-site facility. DOIT also contracts with an agency located out of state to restore the City's largest computer applications after a disaster.
  - Seattle is part of the King County 800 MHz radio system with a network of 4,400 radios and seven of the County's 30 radio transmission sites. These sites provide three levels of redundancy. In 2003, Seattle will add another radio site which will improve coverage in the Capitol Hill, University, and Rainier Valley neighborhoods, as well as increase system redundancy. Three radio frequencies will be added to the 25 frequencies already in Seattle. This addition will increase total radio capacity and will allow for increased communication in an emergency.
2. Improvements to response capabilities to cyber-threats. A clear understanding of vulnerabilities related to cyber-threats is essential for the development and improvement of an effective City-wide strategic security program and is crucial to the City's emergency preparedness efforts. Since September 11, 2001, the City has made significant progress towards meeting the challenges posed by cyber-threats. These improvements include:

- Hiring a Chief Information Security Officer. This position coordinates with the Chief Technology Officer and the Business Management Council on citywide information systems security efforts.
- Developing a series of information-technology-specific actions to be invoked at each Homeland Security threat level.
- Conducting threat assessments (“Red Team” attacks) in which technology security experts simulate an attack of the City’s networks, computer systems, and communication systems to test for vulnerabilities. This included the “Alki” exercise, a cyber attack vulnerability assessment of the City’s networks and computer systems with participation by more than 50 outside experts from around the country.
- Hiring a consultant to identify security issues related to the data networks for the Police, City Attorney’s Office and Seattle Municipal Court.
- Establishing an Internet Infrastructure Team (IIT) composed of highly skilled technical staff from multiple departments. The IIT manages the City’s Internet connections and investigates reports of cyber-attacks.
- Conducting individual departmental IT security evaluations.
- Developing a comprehensive citywide IT security program.
- Establishing the Information Technology Security Board.

DOIT also participates in various training exercises, including the cyber-terrorism exercise included in TOPOFF2. Lessons learned from that event will lead to further improvements, and the interaction with State of Washington, King County and Port of Seattle agencies will lead to improved coordination throughout the region.

### **Department of Neighborhoods**

The Department of Neighborhoods (DON) operates 13 neighborhood service centers and the Citizens Service Bureau. DON emergency preparedness plans take into consideration its role in neighborhoods where the service centers are located and its concern for public safety in all city neighborhoods.

DON is currently developing and implementing a comprehensive disaster preparedness plan based upon an assessment of its security and disaster response strengths and weaknesses. Internally, the emphasis will be focused on staff-related issues. Externally, the emphasis will be on assisting neighborhood residents at DON facilities. Post-disaster operations in the plan will include an immediate assessment of each facility’s safety. This assessment will be especially important considering the neighborhood service centers have daily contact with residents and may be a first point of contact for people looking for assistance. In addition, as part of its comprehensive disaster preparedness plan, DON is:

- Assessing security and disaster response strengths/weaknesses for each DON facility.
- Devising and implementing a comprehensive disaster preparedness plan to cover all DON facilities citywide and address both internal and external responses.
- Updating processes for alerting employees to emergency-related changes in staffing needs and safety issues. (Who calls whom, phone numbers etc).
- Reminding employees to be alert to security matters including unauthorized people in staff areas, as well as events, packages, and individuals that appear to be suspicious or out of place.

- Establishing a phone line for broadcasting emergency messages to staff.
- Disseminating the emergency plan to all employees.

DON's Citizens Service Bureau (CSB) staff is part of the City's disaster response process. In an emergency, the CSB will be a conduit of information from City leaders and emergency officials to residents who call the 684-CITY phone line for information. In return, CSB staffers track residents' inquiries and share that information with public information staff at the City's Emergency Operations Center.

### **Parks and Recreation**

Seattle Parks and Recreation owns and operates a wide range of buildings, athletic fields, parks and open spaces. Parks plays several different roles during disasters, most prominent of which are providing shelter when needed and backing up the other members of the Emergency Support Function for Public Works (ESF-3) as needed.

Parks is currently updating the departmental Disaster Response and Preparedness Manual, and, when completed, the manual will be available at all Parks' major facilities.

### **Shelter**

Parks is designated as the City's primary provider of shelter facilities. The Red Cross is the designated shelter operator and as such provides all the necessary provisions. Training with the Red Cross to update shelter management skills for Parks staff was held in April 2003.

Six Parks Department community centers have been designated as Tier I shelter facilities:

- North: Bitter Lake and Meadowbrook
- Central: Queen Anne and Garfield
- South: Delridge and Rainier Beach

Twenty-four other buildings are designated as possible shelter sites. They are considered Tier II and Tier III facilities. The Tier II facilities are mainly other community centers which may not be as big as Tier I facilities, may not have a large functional kitchen, or lack some other elements needed for sheltering purposes, but they all can be activated in the event of a disaster.

Forms for updating emergency procedures for individual buildings are being prepared and circulated at this time. With a number of fairly new community centers and others being improved through levy program projects, all plans are being reviewed to ensure sure they reflect all the new elements in the buildings.

### **Communications**

Work is underway to update and enhance the communications capabilities of the Parks Emergency Operations Control Center and its two backup locations. SPU is helping improve the inventory of radios and support equipment. Parks is also coordinating with the Amateur Radio Operators group to make sure there are adequate numbers of operators available to the designated park facilities.

### Response

Community Center personnel have been asked to be especially alert to strange behavior, unattended packages and other elements that could be security risks. They have all been advised to call 911 and report any such incidents or items if necessary.

While not regular first responders to emergency or security-risk situations, the department crews have been alerted that they may be called to assist when there is a need for the joint crafts, in tree damage and removal, and in clean-up and logistical support. Parks continues to work on refining its programs and training personnel.

### Seattle Center

One of Seattle Center's primary goals is to provide a safe and welcoming environment to all. Considering the wide variety of activities, resident organizations, and the more than 10 million annual visitors to its 74-acre campus, this is a major challenge.

Prior to the Nisqually earthquake of February 2001, efforts were focused in two areas:

- Providing an overall base level of safety through a 24-hour a day, in-house, security team and established response/evacuation plans for facilities.
- Providing additional layer(s) of security (Seattle Police Department, peer security), specialized emergency response plans and response coordination for major events.

The Center's staff successfully facilitates more than 1,000 events annually and the experience, confidence and calmness gained from dealing with the unforeseen circumstances of major events is clearly evident in times of natural disasters and crisis situations. These experiences and skills resulted in a very positive review of the Center's response to the 2001 earthquake. The review also provided direction to strengthen several areas. In addition, since the September 11, 2001 terrorist attacks, the Center has reviewed policies and procedures to ensure that apply to security incidents.

### Procedures/Training

The Center is completing a revision of the evacuation plan for the Center House, with revisions to other facilities to follow. Additional training and information are being provided to all staff. Security procedures for the entire campus have been strengthened, including photo identification requirements to access certain areas or facilities.

### Access/Physical Security

Additional steps have been taken to protect the campus from unauthorized access and to physically secure/protect all venues. These steps include staffing of campus access points, additional video capabilities, ability to secure all access points to the campus, proximity control of vehicles to certain facilities, restructuring of key access and the addition of card readers in certain critical locations.

### Communications

The Campus Crisis Management Committee (CCMC) - consisting of representatives from the Space Needle Corporation, Experience Music Project, Pacific Science Center, Seattle Monorail Corporation, Fisher Plaza and the Fun Forest - ensures no conflicts exist between emergency plans, establishes various levels/modes of communications for use during emergencies and coordinates and shares resources during emergencies.

Immediately following the 2001 Nisqually earthquake, established modes of communications were unavailable and/or unreliable. Also, although most entities on campus used radio communications, there was no “shared” frequency. To address this problem, the Center, in conjunction with the CCMC, is in the final stage of implementing an emergency radio system that uses UHF. It is a site-specific system and will allow the coordination of emergency response and support. The Center is still firmly part of the regional 800 MHz system and expects to see continual coverage improvements as that system is upgraded and enhanced.

### Redundancy/Lessons Learned

The need for redundancy following an emergency was also highlighted following the Nisqually quake. The Center was unable to use its designated Command Center due to structural concerns of the building. The Center has now established three additional options, including two in non-City owned facilities. All three facilities are newly constructed and meet all current safety standards. It was noted that some of the Center's designated meeting locations could potentially be rendered unsafe by certain natural disasters so alternate locations were designated. In addition, safety supplies and emergency equipment have been dispersed throughout the Center so that loss of access to one location is not a critical issue.

### Recovery

Due to the personal relationships of the Center's Project Management staff and local structural engineers, the Center was able to quickly evaluate and reoccupy its facilities following the Nisqually quake. Steps have been taken to formalize these relationships. This is especially critical due to the Center's shelter responsibilities in the City Emergency Preparedness Plan, as well the financial well being of the Center and its tenants/resident organizations.

### Seattle Public Utilities

Seattle Public Utilities (SPU) is comprised of three major utilities which provide direct service to customers: Water, Drainage & Wastewater, and Solid Waste.

- The Water Utility provides water to more than 1.3 million customers throughout King County. The water supply system has redundancy – so that if one component of the system fails, another can absorb the loss.
- The Drainage and Wastewater Utility collects and disposes of sewage and stormwater in the City of Seattle in order to protect public health and minimize flooding.
- The Solid Waste Utility collects and disposes of recycling, yard waste and garbage in Seattle.

SPU has completed vulnerability assessments of key infrastructure sites. The federal Environmental Protection Agency (EPA) selected Seattle as one of only five cities across the nation to work with Sandia Labs, a nationally recognized security consultant. Because of SPU's

close working relationship with the EPA, Seattle was able to obtain federal funding for the study. Sandia Labs completed its vulnerability assessment of the Water Utility in August 2002. This assessment reviewed the entire water delivery system as well as the dams. The assessment will enable SPU to decrease its vulnerability to a range of threats – both terrorism and natural disasters. SPU is currently working on implementing the report's recommendations. Vulnerability assessments for the Drainage & Wastewater and Solid Waste utilities are underway.

A number of elements comprise SPU's ongoing work to maintain its preparedness.

- In 2003, SPU created and filled a new security manager position to oversee its security operations.
- Weekly security team meetings held with representatives from each of SPU's utilities.
- Development of a system to monitor remote water facilities.
- Hiring the Pinkerton Agency to provide additional patrols at critical SPU facilities.
- Partnering with the EPB, Fire Department, King County Emergency Operations Center, the State Office of Emergency Management, and FEMA in various training exercises and classes. Four times a year, SPU conducts table-top exercises which focus on a specific hazard (e.g. radiologic dispersion, water contamination, etc.). In 2002, SPU participated in a federally sponsored weeklong training exercise on responding to a radiologic dispersion device; this type of training is on the cutting edge of emergency preparedness.
- Participation in the Public Works Emergency Support Function (ESF-3) with City Light, Parks and DCLU. Each department in this ESF is contributing funds to support a study on how to more effectively communicate information between the field and the Emergency Operations Center during an emergency.

SPU and the Seattle Police Department's Emergency Preparedness Bureau (EPB) are partnering in several ways to improve the utility's security.

***10 lines of text redacted. This portion of the record is a specific and unique response and deployment plan for monitoring, deploying assets, and responding to an intrusion at SPU facilities. Public disclosure of this record would have a substantial likelihood of threatening public safety. This portion is exempt from disclosure under RCW Section 42.17.310(1)(ww) of the Public Disclosure Act, RCW 42.17. 250 et seq..***

#### Communication

There are several ways SPU may communicate with residents in a disaster. One is a telephone outdialing system that can be used to call a list of people and leave a recorded message. Each person called receives the same message in a timely, cost-effective manner. It is a quick way to reach a specified area of the community. For example, it could be used to provide information if the water has been contaminated in a certain neighborhood. It could also be used to mobilize City employees in the event of an emergency. The current outdialing system has 24 lines; in eight hours, it can reach 23,000 homes and businesses. The Department of Information Technology is currently considering options for expanding the system's capabilities.

Another SPU resource is the Emergency Resource Center (ERC). Implemented after the landslides in 1997, the ERC provides a single number people may call in an emergency to report

problems (e.g. landslides, power outages) and obtain information. It is staffed by SPU customer service employees who answer the calls and then enter the information into a computerized database. The information is then distributed to the appropriate agencies.

### **Seattle Department of Transportation**

There are 143 bridges within the City of Seattle and the Seattle Department of Transportation (SDOT) is responsible for their safety. SDOT has prioritized these structures based on vulnerability and importance and has identified the top 58 City bridges that would be the first to be inspected following an earthquake. SDOT has developed a self-starting Post Earthquake Inspection Program that includes trained teams of bridge inspectors who are pre-assigned to specific routes. The program is set up so bridge inspectors do not have to go to a central spot and then be dispatched. Instead, they report to several spots strategically placed throughout the City, pick up supplies and then go to a pre-assigned bridge inspection route. SDOT has positioned bridge inspection backpacks with necessary supplies, including radios, throughout the City. This program will enable a rapid response for evaluation and structure closure if necessary after a disaster.

SDOT has taken numerous steps to prepare for a disaster/emergency:

- Completed Phase One of a \$25 million Bridge Seismic Retrofit Program in which 24 bridges were strengthened.
- Improved security on the City's movable bridges by installing lighting and cameras.
- Updated its Emergency Response Plan as a supplement to the City Disaster Response Plan
- Developed a draft SDOT Emergency Preparedness Framework (currently under review)
- Developed a department response to all levels of the Homeland Security Advisory System and developed a specific response when the security level was elevated to "High" (Orange), including increased security inspection of key bridges
- Developed a Street Damage Assessment Protocol and scheduled training to ensure the City's arterials receive timely damage assessments for reporting to the EOC and other response departments
- Improved communications logistics with WSDOT for state bridges in Seattle
- Evaluated and revised emergency call out response procedures and list
- Sent out communications to all employees on several disaster response topics including home preparedness, evacuation procedures, and dealing with suspicious packages
- Updated SDOT's Movable Bridge Telephone/email Bomb Threats Response Policy
- Improved support and logistics for SDOT EOC responders
- Attended EOC responder training
- Participates in the Disaster Management Committee and Public Works Emergency Support Function (ESF)-3 with SPU, City Light, Parks and DCLU
- Participated in TOPOFF2. This training and exercise helped prepare SDOT for its role in assessing City of Seattle streets and structures after a disaster.

# RESPONSE

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The City has a variety of resources called upon for emergency response. This section highlights some of the functions and strategies available in an emergency.

The Seattle Fire and Police Departments are two of the best resources available to the City in the event of a catastrophe. The Fire Department has 1,000 sworn officers and the Police Department has 1,220 sworn officers for a combined pool of over 2,000 sworn, trained personnel available to respond in an emergency situation. In addition, each department has areas of expertise that increase their ability to respond to a variety of situations.

## **Specialized Teams**

The Fire Department and the Police Department have several specialized response teams that handle a wide variety of events. These specialty units are intended to complement first-line officers. The following section includes information on the Fire Department's HazMat, Marine Response, Medic, Metropolitan Medical Response, and the Technical Rescue teams as well as the Police Department Bomb, Harbor Patrol, and SWAT teams.

### **Hazardous Materials (HazMat) Team**

Seattle Fire Department's hazardous materials capabilities are on the leading edge of detection and mitigation and have capabilities to respond to weapons of mass destruction. The unit is staffed daily with a total of 12 personnel and a minimum of 11 of these personnel have been trained as Haz-Mat Technicians. Team members are trained subject matter experts in chemical/biological/radiological incident mitigation and common industrial accidents. This team provides the following capabilities: redundant hazardous material response capability during periods of national, regional and local unrest; enhanced product identification training and equipment; a fire department-based hazardous substance evaluation process to reduce the actual demand for the Department of Health (DOH) laboratory resources; and coordination with the SPD Bomb Squad Unit to route inconclusive organic substances for further evaluation.

### **Marine Emergency Response Team**

This Fire Department team provides technical support to Incident Commanders at marine incidents. Such emergencies include fires, confined space rescues, hazardous material releases, flooding, and pollution incidents. Marine Response Team personnel are cross trained with other special operations units. For example, they respond to confined space incidents along with the Technical Rescue Team. They also respond with the Hazardous Materials Team and provide assistance with decontamination equipment. Marine Response Team members have taken the lead in the formation of a Puget Sound Marine Response Consortium. This organization partners with the United States Coast Guard, the marine industry, and regional response agencies. The Consortium provides the marine industry with enhanced protection of vessels, crews and the environment while affording fire agencies access to the training and resources needed to prepare for such an incident.



### Medic One

Medic One is part of the Fire Department and directly provides the City of Seattle with Basic and Advanced Life Support activities that, in the past, could only be performed by licensed physicians. To become a paramedic, department firefighters train for one year under the close supervision of the Medical Director at Harborview Medical Center and veteran paramedics. Paramedic trainees must successfully complete 3,000 hours of intensive instruction and hands-on training. Paramedics respond to basic and advanced life support alarms, fires, hazardous materials, and rescue responses.

In addition, some Fire Department medics have received specialized training in operating inside an unsecured environment for the purposes of treating injured persons. These medics work directly with SPD SWAT personnel during incidents and add an important level of life safety in dangerous situations.

### Metropolitan Medical Response Team

Terrorist activities that have occurred in past years, such as the bombing of the Federal Building in Oklahoma City and the release of a deadly nerve gas in a Tokyo subway system, have prompted the expansion of the Fire Department's HazMat Team. In response to the threat of such domestic terrorism, the Department formed its own Metropolitan Medical Response Team (MMRT). Team members have been through extensive training to detect, contain and neutralize deadly nuclear, biological and chemical agents. This system provides decontamination capability, both for technical decontamination and mass decontamination. This approach has added depth of training, equipment, personnel and inter-agency cooperation to respond to an incident involving weapons of mass destruction.

The Fire, Police and Public Health departments worked together to obtain grant funding for this program, and that process helped to strengthen the partnerships between the three agencies. A goal of the Fire Department is to implement the Hazardous Materials Response and the Metropolitan Medical Response teams as regional resources. This would increase the interoperability of resources between the department and similar organizations.

### Technical Rescue Team

Emergencies that require dispatch of a Technical Rescue Team (TRT) occur infrequently, but they are also the incidents that pose the highest safety risk to both victims and firefighters. The Seattle Fire Department staffs a minimum of five Rescue Technicians seven days a week, 24 hours a day. These technicians are also a valuable resource for training other firefighters in technical rescues. Examples of technical rescues include:

- Collapsed buildings
- Trench cave-ins
- High angle rope rescues
- Marine accidents requiring the Dive Rescue Team
- Confined space emergencies requiring the Tunnel Rescue Team
- Heavy machinery & transportation incidents

Members of the TRT also participate in FEMA's Urban Search and Rescue Team. Future improvements in service are focused on sharing information, training and resources with

contractors, labor and professional organizations. The TRT continues to build relationships with the business community. The TRT also participates in cooperative, comprehensive, training and education programs that include emergency responders and professionals from the business community.

The Seattle Police Department also has several highly trained units available to respond in an emergency situation.

### Bomb Squad

The purpose of the SPD Bomb Squad is to locate and render safe any improvised explosive device. If military ordinance is found, the Bomb Squad will contain and stabilize the situation and then call for military explosive experts who will defuse the device. The squad is staffed with eight bomb and hazardous materials technicians (two of whom are supervisors) with extensive training. In an event involving weapons of mass destruction, deployment of this unit is crucial in locating and rendering safe secondary devices aimed at harming first responders and citizens.

The Bomb Squad Unit partners with several other teams both within and outside the department. This team approach allows the Bomb Squad to increase its ability to respond to multiple events simultaneously. In addition, training with other bomb squad and HazMat teams increases their ability to work together seamlessly in an emergency situation. Examples of these partnerships include:

- Working under unified command with the Fire Department Hazardous Materials Team when responding to incidents;
  - Cross-training with members of the SPD SWAT and Clandestine Drug Lab teams to increase the number of personnel available to respond to bomb threats in an emergency situation;
  - Working with the SPD Harbor Patrol Unit to develop an underwater explosive device team;
  - Training with first responders from King County and the Port of Seattle for mutual aid; and
  - Training with the FBI Hazard Materials Response Unit. The FBI has jurisdiction in events involving weapons of mass destruction; the Bomb Squad would work closely with the FBI in such a situation. The Bomb Squad works with local FBI and other federal personnel to ensure that federal and local interests are addressed.
- 
- Working with community groups and businesses on how to respond if they find a suspicious item. Depending on the situation, the focus can be on procedures for evacuation or for sheltering in place until the Bomb Squad is able to respond.

### Harbor Patrol

The SPD Harbor Patrol Unit is the City's law enforcement unit on the water in Seattle. It is responsible for patrolling all fresh water from Lake Washington to the Ballard Locks, and it also covers Elliott Bay. Its responsibilities include:

- enforcing the ordinances and regulations of the City
- removing nuisances and hazards to navigation
- responding to and investigating marine and maritime accidents

- search and rescue including a dive team that does both rescue and recovery
- crime prevention, including anti-terrorism patrols, and outreach to the marine community

The Harbor Patrol has three large vessels (one in salt water and two in freshwater) plus some smaller boats for fast response. The Harbor Patrol Unit includes 26 officers; 22 are certified scuba divers. In addition, they have had training on explosive ordinance disposal. The unit is currently working to obtain training for its staff in underwater explosive recognition. This training will give the unit the ability to check for underwater explosives (a different agency would be responsible for disarming them).

Harbor Patrol works closely with the Fire Department's boats stationed in Elliott Bay and Fisherman's Terminal. Harbor Patrol also works in partnership with the Coast Guard. As part of its partnership, Harbor Patrol now conducts checks of key infrastructure sites in Elliott Bay on a daily basis. Harbor Patrol also escorts cruise ships in and out of port and will also escort the Navy when they come in for special events (e.g. Seafair). The Harbor Patrol Unit has also partnered with the U.S. Customs Agency and performs pier and hull checks for them. The Harbor Patrol Unit works with the Environmental Protection Agency, the Department of Ecology, and the Coast Guard in responding to environmental issues such as boat sewage, sandblasting residue and chemical pollutants.

#### SWAT Team

The Seattle Police SWAT (Special Weapons and Tactics Team) consists of 24 police officers, four sergeants and one lieutenant who are on call 24 hours a day, 365 days a year. The unit's specially trained personnel provide tactical response to hostage situations, barricaded persons, sniper and terrorism incidents, crowd control during major disturbances or riots, work or school place violence and high-risk search warrant entries for various investigative units including Homicide, Robbery, Narcotics and Domestic Violence. They also support the five precincts by conducting drug emphasis backup and respond with patrol on high-risk calls for service.

When heads of state and international dignitaries visit Seattle, SWAT provides motorcade security and protection in collaboration with the U.S. Secret Service and U.S. Department of State. In addition, SWAT works directly with the Department's 20-person Hostage Negotiation Team to resolve hostage incidents non-violently.

While the goal of every police officer is to save lives and de-escalate the potential for violence, there are times when a violent suspect must be prevented from killing innocent victims or bystanders. SWAT marksmen are highly trained and disciplined to make precision rifle shots up to several hundred yards away. The team also utilizes 'less lethal' weapons such as the Taser, wood, foam and plastic batons, a net capture system and various chemical agents, each used as an alternative to the use of police firearms.

To maintain the skills necessary to handle high-risk situations, SWAT members train rigorously on a weekly basis. Many SWAT members hold instructor ratings in various disciplines and provide instruction to other department members and law enforcement agencies around the state. When their schedule permits, many members also provide firearms instruction to assist SPD Range staff in training and qualifications.

Beyond the Fire and Police specialty units are several regional resources which would support the City in the event of a catastrophe.

#### FEMA Urban Search and Rescue (US&R)

The Seattle Fire Department participates in the Washington State FEMA Urban Search and Rescue Task Force. The 12-year-old team consists of 200 trained personnel and a cache of equipment for urban search and rescue operations. It is one of only 28 FEMA units across the country. The task force deploys with 62 people, is self-sustaining for 72 hours, and is comprised of sworn officers, paramedics, and specially trained civilian volunteers. This team is capable of heavy rescue, i.e., building collapse (natural or intentional), advanced search by sensors or canine, hazardous materials identification, and advanced medical assistance. The Seattle component has been deployed in New York City (World Trade Center), Oklahoma City (Alfred P. Murrah Federal Building) and Los Angeles (Lo Prieta Earthquake). In addition to search-and-rescue support, FEMA provides hands-on training in search-and-rescue techniques and equipment, technical assistance to local communities, and, in some cases, federal grants to help communities better prepare for urban search-and-rescue operations.

The Seattle Fire Department houses and owns a significant portion of the cache of equipment used by the US&R task force. The remainder of the cache is located in Pierce County. In 2003, some Pierce and King County agencies requested that the two stores of equipment be consolidated in a single location in South King County. Seattle is working with Pierce County to identify some equipment for transfer to Pierce County; however, equipment owned by the City of Seattle will continue to be housed in Seattle.

#### Mutual Aid

Mutual Aid is a lifesaving first line of defense for any agency that finds their own resources are insufficient to deal with an emergency. Both the Seattle Fire and Seattle Police Departments have extensive history with mutual aid in emergencies. Fire agencies throughout the state are bound and directed by a fire mobilization and mutual aid plan. This plan has been used numerous times over the years with great success. In 2003, the State Legislature passed legislation that requires a similar plan for law enforcement. Anticipating this legislation, the Washington Association of Sheriffs and Police Chiefs has directed the creation of a statewide mobilization plan.

### **Specialized Equipment and Facilities**

#### E-911 Center and 800MHz Radio System

The City of Seattle's 911 Center is a state-of-the-art facility that is continuously being updated. The levy-funded 911 Communications Center has ensured that the Seattle community receives the best possible service when calling 911. The City is also part of the King County 800 MHz radio system providing the City with a large bandwidth to allow for improved interagency communications and, when necessary, intra-agency communications.

### Personal Protective Equipment

Following WTO and other local and national events, Seattle acquired personal protective equipment (PPE) for every sworn member of the police department. Seattle is one of a few police agencies that have protective gear for all sworn personnel. This protective gear includes a gas mask that is usable for response to a weapons of mass destruction (WMD) incident. The Fire Department has a total of 1,000 sworn firefighters; it has breathing equipment for 400 firefighters.

Additional protective equipment has been obtained for both Fire and Police through Homeland Security grant funds. With assistance from a State Grant via the State Committee on Terrorism, every patrol car in King County has WMD escape gear. This gear is designed to provide the officer with the ability to escape a WMD threat area.

### Guardian One Helicopter Downlink/Surveillance Cameras

The City of Seattle, with approval of the King County Sheriff, set up a live video feed system from King County's Guardian One helicopter into the City's Emergency Operations Center. This video link can provide crucial information to the field commanders and/or the EOC Director during times of crisis. Additionally, present throughout the City are an ever-increasing number of surveillance cameras. Some of these can be directly accessed in the EOC. Over time, this capability will expand to offer real-time assessment capabilities to City command centers.

### Prepositioned Equipment Program (PEP)

The September 11, 2001 terrorist attacks demonstrated that a terrorist incident can rapidly deplete local supplies and equipment. To meet this critical need, the U.S. Department of Homeland Security launched the Prepositioned Equipment Program (PEP). PEP consists of standardized equipment pods located in selected areas across the country to permit rapid deployment to jurisdictions faced with major catastrophes. Seattle is one of 11 designated PEP sites across the country and is one of the first three sites to receive the equipment. These 11 sites will be available to respond to an incident in any major population area across the continental U.S. within six hours.

PEP will deploy the following elements to the disaster site: equipment set, PEP support team, and a mobile communications system to ensure communications interoperability. Each equipment set includes devices, tools, supplies and additional material most likely needed by the initial on-scene responders to sustain their efforts. Examples include: personal protective equipment; chemical, biological and radioactive detection instruments; medical supplies and equipment; search equipment; decontamination equipment; and logistics equipment.

## **Communication Strategies**

### **Communications Plans**

During a disaster, an effective communications plan can literally mean the difference between life and death. At the heart of City operations lies the Emergency Operation Center (EOC). Bureau personnel from the Emergency Management Operations Section form the core support staff for the EOC when it activates. During any full activation, the EOC becomes the operational hub of City government and is the primary point of contact with other regional EOCs, with the State EOC, and with federal joint operating centers. The ability to communicate and coordinate in real time between these centers will save lives in an emergency and is essential in coordinating a regional response to the emergency. An enhancement to communications earlier in 2003 was to add video conferencing capabilities, which was fully tested during the TOPOFF 2 exercise, and has proven an effective method for decision-making by allowing participating jurisdictions to remain in their respective command centers. Of equal importance is the role the EOC serves in coordinating the activities of several City department-level operations centers. Critical communications between these centers can only be achieved and maintained by establishment of comprehensive communication protocols and training to ensure they work under stress.

Operational personnel, commanders, department heads, City leaders, the media, and the public all want current, accurate, factual information, and they want it immediately. Disasters are not clinical events, but real human tragedies, often played out in a setting of fear and uncertainty. The Mayor is the primary spokesperson for the City. A top priority for the EOC is to provide the Mayor with timely, accurate and concise information that enables him to direct the City's response, inform and reassure the public, and communicate with the media.

### **Emergency Public Information Overview**

In the event of an emergency or disaster affecting the City of Seattle, the Emergency Public Information Function is activated. Its purpose is to inform the public of the status of the emergency, the actions the City and other jurisdictions/agencies have taken to respond to the emergency, and actions the public should take in response to the emergency.

The City provides centralized dissemination of information related to the emergency/disaster within the City limits through a variety of communications channels including news conferences, news releases, the Seattle Channel, the City's public web site ([www.seattle.gov](http://www.seattle.gov)), the Emergency Alert System, citizen information lines, and the news media.

The City maintains a roster of department public information officers (PIOs) who are prepared to come under the direction of the Mayor's Communications Director upon activation of the Emergency Public Information function. City PIOs are trained in Emergency Public Information functions, including operation of the PIO Room at the EOC; they receive regular updates/training on issues related to emergencies and disasters.

Depending on the severity or breadth of an emergency, there are varied levels of response for the City's Emergency Public Information Function:

- **Single department** – If only one City department is affected by an emergency, that department's PIO handles the public information function from that department's office

or operations center. An example of this type of emergency is a localized electrical power outage. The PIO keeps the Mayor's Communications Director apprised of the progress of the event.

- Multiple departments – This type of emergency involves more than one department, e.g., a rainstorm that causes electrical power outages in some parts of the City could also cause local flooding and landslides, involving City Light, Seattle Public Utilities and the Seattle Department of Transportation. The PIOs apprise the Mayor's Communications Director about the incident that has required response from multiple departments. The Mayor's Communications staff coordinate the City's response from the Mayor's Office, working with the departments' PIOs.
- EOC Activation – If the City faces a large-scale event that goes beyond the above levels, requiring a multi-agency response, and warranting the use of the Mayor's emergency powers, the Mayor activates the EOC. The Mayor's Communications Director coordinates the City's emergency public information response from the EOC. The EOC is the primary site and source of emergency public information from the City of Seattle to the public and City employees, through a variety of communications channels.

In 2002, the Mayor's Office formally assigned a PIO to provide oversight of the Emergency Public Information function (ESF-5), which includes monitoring and updating the Emergency Public Information Annex as necessary, meeting regularly with other jurisdictions for coordination of emergency public information response efforts, and coordinating regular training of the City PIOs. Prior to 2002, this work had been done on an ad hoc basis. The formal assignment of a PIO to this function allows more consistency, ensures stability, and provides institutional knowledge across administrations.

#### Warnings and Notification

Homeland Security Presidential Directive Number 3 created the National Threat Warning System. This system was developed in response to the terrorist attacks of September 11, 2001 and is targeted at government entities. The State of Washington used the federal standard to create the State of Washington Homeland Security Advisory System that is designed to assist citizens, businesses, critical infrastructure facilities and all levels of government in initiating standardized actions as a result of increased terrorist threats. This color-coded, five-level threat system contains recommendations that are generic in nature and allow the individual, business, or governmental entity to develop specific actions appropriate for its size and complexity. The Seattle Police Emergency Preparedness Bureau (EPB) adapted the State guidelines into Seattle-specific recommendations for each threat level. Additionally, the guide is being further modified into a threat level preparedness advisory for citizens and, when finished, will be available on the City's web site.

The EPB initiates and coordinates the City's response to changes in the national threat level and provides briefing and notification to department heads and the mayor. The following are examples of notification systems:

- Threat level change briefing protocol – whenever the threat level changes, the EPB coordinates preparation of information to enable the Mayor to communicate to all City employees a short, concise message regarding the threat change, any recommended actions, and a notice that the EPB or their ESF coordinator would be in contact soon with additional information.
- Telephone Outdialing System – a system available through the EOC, SPU Operations or Police Communications that enables the dialing of every public phone number in a designated geographic area to deliver important emergency information.
- EOC Activation – The Disaster Readiness and Response Plan spells out the procedure for activating the EOC and for providing notification to key personnel, most importantly, the Mayor.

### Incident Command System (ICS)

In a large disaster, there will be multiple field operation centers, personnel and equipment from numerous departments and agencies, all attempting to work in concert to deal with and recover from that disaster. Effective communications among the various players is essential for unified command to succeed. The Incident Command System (ICS) is used by all departments for managing emergencies, thereby standardizing command structure and terminology for critical incident response. ICS is federally mandated for use by all agencies dealing with FEMA if those local jurisdictions want federal reimbursement.

The two aspects of ICS are: 1) clear and concise protocols that provide guidance to participating agencies regarding the generation and sharing of information and directions; and 2) the technology that serves as a conduit for information and guidance to flow smoothly. Ongoing training on the ICS ensures that all agencies responding to a critical incident work under the direction of a Unified Command. Having a single, on-scene commander, with overall citywide coordination exercised through the Emergency Operations Center, will ensure that that all agencies are working toward a common purpose and that efforts are well coordinated.

### Civilian Mobilization Plan

In the aftermath of a disaster, employees whose normal jobs cannot be performed because of the disaster represent a valuable asset in the City's efforts to respond and recover. The EPB is reviewing a newly completed Civilian Mobilization Plan for police employees. This plan is designed to allocate civilian resources to a location and schedule to benefit the community after a disaster. Once approved, this mobilization plan can serve as a blueprint for departments across the City to use in determining appropriate placement and assignments for their employees following a disaster.



# COMMUNITY OUTREACH

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An important part of any preparedness strategy is to involve the community, both residents and businesses. Seattle has several highly recognized programs that do just that. In 2003, Seattle will continue to expand and improve these programs.

## **SDART – Seattle Disaster Aid and Response Teams**

The SDART program is based on the premise that normal business and emergency services may be disrupted for a significant period of time during a major disaster, whether natural or man-made. Its primary goal is to help people prepare to be self-sufficient for the three days following a serious disaster, when 911 emergency responders – police, fire, and medical personnel – may be consumed with life-saving actions. SDART trains residents to identify resources within their neighborhoods that can be activated during such an event, minimizing negative consequences and supplying supplemental support to those in need of assistance. SDART organizes and trains community members in six areas: communications, damage assessments, first aid, safety and security, light search and rescue, and sheltering and special needs. More than 350 neighborhood groups have received this training.

Training for SDART teams includes drill and exercise sequences that take place over a two-year period. The first is a tabletop discussion followed by a walk-about exercise and finally a functional drill simulating an actual response. Following the tabletop exercise, participants receive permanent emergency worker status and are issued a SDART identification card. This status is maintained by participating in the remaining drills and exercises. A one-day SDART academy is presented in April every year for those members who have completed some or all of the process of becoming certified emergency preparedness workers.

The Mayor has directed that community outreach staff formerly of SPD's Crime Prevention Unit be trained in SDART principles and assist in training future neighborhood groups in this comprehensive preparedness program. This training is well underway.

## **Building on Block Watch**

Crime prevention coordinators are now part of Seattle's emergency preparedness efforts. Assigned to each of the five police precincts, and acting in concert with employees of the EPB and the Department of Neighborhoods, these coordinators spend one-third of their time bringing emergency preparedness training and information to neighborhood groups, primarily through Seattle's nationally recognized Block Watch program. These same employees are currently being trained to expand the previously mentioned SDART program and Project Impact. Three other newly added employees will greatly increase Seattle's abilities in this area.

### **Business Emergency Network**

In April 2003, the City of Seattle initiated a communication system to assist businesses in their response to and recovery from an emergency. Known as the Business Emergency Network (BEN), it enables businesses to receive information directly from the City's Emergency Operations Center and provide feedback to the EOC about what resources they need. BEN is designed to reach businesses throughout the Central Puget Sound and become a regional network for sharing information and resources among public and private organizations. The City worked in partnership with the Greater Seattle Chamber of Commerce, the Building Owners and Managers Association of Seattle and King County (BOMA), and other business organizations to create this program. BEN is designed to be a one-stop shop for businesses to share information and resources during an emergency as well as a way to create partnerships among businesses that would assist economic recovery.

### **Seattle Project Impact**

Seattle Project Impact is a public-private partnership whose overall goal is to make our communities more resistant to the damaging effects of natural disasters, primarily earthquakes. Initial funding for the program came from FEMA to the City of Seattle. On-going leadership and oversight comes from Seattle Emergency Management through the efforts of a full-time coordinator and a community-based task force.

Pooling the knowledge and talents of its many partners - government agencies, large and small businesses, educators, scientists, neighborhood organizations, and dedicated volunteers - Seattle Project Impact has a number of successful programs underway. They are:

- **Regional Home Retrofit:** helps homeowners strengthen property susceptible to structural damage from earthquakes.
- **School Retrofit:** removes nonstructural and classroom hazards from public schools to keep students safe.
- **Hazard Mapping:** studies geologic hazards and produce better landslide and earthquake hazard maps for the City to use in developing land use policy.
- **Disaster Resistant Businesses:** educates businesses about their disaster exposure, how to minimize their potential for economic loss, and how to maximize their ability to remain operational.

**Regional Home Retrofit** is probably the most visible of Seattle Project Impact's programs. Its aim is to strengthen older wood-frame homes against earthquake damage by bolting them to their foundation and reinforcing sheer walls. Program elements include a pre-engineered set of drawings for "standard" homes in need of retrofit, expedited permitting through Seattle's Department of Design, Construction & Land Use, retrofit classes for homeowners and contractors, a tool lending library available to homeowners doing their own retrofit, and loans through local lending institutions. For low-income homeowners interested in retrofitting, Seattle's Office of Housing offers special, low-interest loans.

As of February 2003, the Phinney Neighborhood Association, a Home Retrofit partner, has already trained more than 2,700 homeowners and 407 contractors in classes offered through the University of Washington, resulting in more than 500 retrofitted older homes. In addition, 25 homes with low income owners have been retrofitted. Seattle's Home Retrofit program has

inspired 19 Puget Sound area jurisdictions to follow its lead. It's estimated that more than 250,000 homes regionally are in need of structural retrofitting. The Emergency Management Section of the EPB coordinates this regional home retrofit program.

**School Retrofit** has three areas of focus: overhead hazard removal, nonstructural retrofit, and automatic gas shut-off valves. School Retrofit's comprehensive program includes a "how to" school retrofit guide available online, training for staff and volunteers, and student involvement. SECURE (Student Education Campaign about Understanding Risk from Earthquakes) seeks active student participation in creating options for making our community more earthquake-safe.

In the three-and-a-half years since the School Retrofit program's launch, 46 schools have removed overhead hazards, such as porcelain flush tanks. In nine other schools, volunteers joined with custodial staff to secure electronic equipment such as TVs and computers that could fall and pose a hazard to students. Three schools have installed automatic gas shutoff valves. Thousands of school children are now learning in safer schools. In keeping with Project Impact's commitment to sharing its successes with other jurisdictions, School Retrofit programs have been launched in Kenai, Alaska and Walla Walla, Washington. Emergency Management and the Seattle School District personnel have provided mentoring services.

**Hazard Mapping** focuses on two Seattle exposures: landslides and earthquakes. Maps are being produced that integrate existing landslide records with data about historical rainfall and geotechnical soil properties of Seattle's landslide-prone areas. A three-dimensional geologic map of the Puget Sound Area is being produced that incorporates complex structural relations beneath the surface with ground motion data. The mapping will help area residents understand more about the risks they face and aid in the development of land use policies. Mapping partners include the U.S. Geological Survey, Seattle Public Utilities Geographic Information Systems (GIS), University of Washington Geophysics Program and Seismology Lab, and the geotechnical firm of Shannon and Wilson.

Government and businesses are already using the information made available through the Lifelines Map. Three studies have been completed, one of which recorded the ground motion during the Kingdome implosion. Research launched in Seattle has caught regional and national attention, spurring other community hazard-mapping partnerships.

**Disaster Resistant Businesses (DRB):** When a serious disaster strikes, unprepared businesses may find their day-to-day operations severely disabled. Businesses suffering major losses may not recover, affecting the local and regional economy. The DRB program directs information to all size and type of businesses and targets smaller operations with limited resources.

To ensure the economic health of our community after a disaster, Seattle Project Impact collaborated with the Institute for Business & Home Safety (IBHS), the U.S. Small Business Administration (SBA), business disaster planning experts and other regional partners to create the DRB program. The DRB partnership makes materials and resources available to businesses so they can take tangible steps to help reduce loss and ensure post-disaster survival.

Disaster Resistant Businesses has partnered with Neighborhood Business Councils and Chambers of Commerce to hold informational forums for more than 100 Seattle businesses. At these events, businesses are able to connect with experts about how to prepare for a range of hazardous events - from a power outage to an earthquake. Materials are made available to businesses both at these forums and online through the Seattle Project Impact website. Sixty business partners currently are working with the Emergency Management division to enhance overall business readiness and in the development of a comprehensive Toolkit to assist businesses create or enhance their disaster plan.

## RECOVERY & MITIGATION PLANNING

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### Recovery

The immediate restoration and normalization of City services helps residents, local businesses and the City return to full functionality following a disaster. Since 1990, Emergency Management has played a central role in coordinating reimbursement as part of the City's disaster recovery process.

Steps in the recovery process include:

- **Pre-event planning and preparation.** Seattle Emergency Management and other City departments prepare for likely hazards - those that can be predicted, such as winter storms, and those that cannot, such as earthquakes.
- **Response and emergency repair work.** Recovery begins immediately following a disaster. While response and emergency repair work are still underway, Seattle Emergency Management takes the necessary steps to start the recovery reimbursement process.
- **Damage assessment.** Seattle Emergency Management coordinates damage assessment efforts between City departments and representatives from state and federal agencies. This process serves as the basis for federal-assistance decisions.
- **Project design and construction.** Based on the results of the damage assessment, City departments begin designing and implementing projects to repair damage. When possible, the re-build design incorporates mitigation measures to minimize the risk of future disaster-related damage.
- **Cost recovery.** Seattle Emergency Management serves as a liaison between City departments, the State and FEMA on the reimbursement of eligible emergency repair and recovery project costs.

### Recent Declared Disasters and Recovery Projects

Since 1990, in addition to countless smaller events, Seattle has had eight Presidential disaster declarations:

- 1990/1991 Floods (2 declarations)
- 1993 Windstorm
- 1995/1996 Floods (2 declarations)
- 1996/1997 Winter Storms
- March 1997 Winter Storm
- February 2001 Nisqually Earthquake

Damage from wind, rain and snow has resulted in hundreds of recovery projects across City departments. Typical projects include:

- Debris clearance
- Snow removal
- Road and bridge repair
- Water and sewer system repair and replacement
- Repair of damaged power transmission facilities
- Building repair
- Slope stabilization – retaining walls, rockwork, erosion control measures
- Flood control
- Dam repair

### **Federal Resources for Recovery**

#### **Federal Emergency Management Agency (FEMA) Public Assistance Program**

Following a Presidential Disaster Declaration, the Mayor designates an "Applicant Agent" to serve as the City's authorized representative with State and FEMA recovery agencies. The Emergency Management Recovery Coordinator, who has served as Applicant Agent, oversees the lengthy and complex public assistance process: damage assessment, application for funds, project design and approval, billing and receiving reimbursement, and final inspections and audits.

FEMA and the State of Washington together reimburse a percentage of eligible recovery costs. Between 1990 and 2000, Seattle Emergency Management billed, collected and disbursed over \$15.8 million in public assistance on behalf of the City of Seattle. Also between 1996 and 2000, the City of Seattle has received \$25 million from the Federal Highway Administration (FHWA) for road repair.

By the end of 2002, the City had completed 96 of the 123 Nisqually Earthquake projects approved by FEMA. The City anticipates receiving a total of \$27.6 million of funding from FEMA, the Federal Highway Administration, and FM Global (the City's insurance provider) for a total of 171 projects.

### **Mitigation**

All around the Seattle metropolitan area, public property, critical facilities, and lifeline systems are being protected from disaster damage. Strengthening structures and systems to minimize future damage is referred to as "mitigation." The role of Emergency Management is to oversee the application for and management of federal funds for mitigation projects and to encourage City departments to integrate mitigation into post-disaster recovery projects.

#### **Managing FEMA Mitigation Grant-funded Projects**

Between 1995 and 2000, the City received a total of \$2.9 million in mitigation grants from FEMA and the State of Washington. Seattle Emergency Management serves as a liaison between the City, State and FEMA on these projects.

The City has received partial funding for the following projects:

- **Duwamish Head Stabilization Project** (*Seattle Public Utilities*). Completed in 2000. This project is designed to protect public and private land from landslide damage by stabilizing a steep slope above Alki Avenue in West Seattle. The installation of de-watering wells and slope re-grading are a few of the techniques being used to minimize further land movement.
- **Fire Station Retrofits** (*Fleets and Facilities Department*). Completed in 1999. In order to protect these critical facilities, fire stations 2 and 18 were structurally retrofitted to reduce earthquake damage.
- **Bridge retrofits** (*Department of Transportation*). Completed in 1998. Three bridges -- Dr. Jose Rizal, Admiral Way and Fairview Avenue -- were structurally retrofitted to reduce earthquake damage.

#### Innovations in Mitigation

Above and beyond FEMA-funded mitigation projects, City departments have initiated a range of other innovative projects to protect the community from disaster, including:

- **Meadowbrook Detention Pond**

Persistent flooding and wildlife habitat deterioration inspired the design of the Meadowbrook Detention Pond. The area was a wetland prior to the construction of the Lake City Sewage Treatment Plant in 1952 and provided natural flood control space for the Thornton Creek Watershed. This Seattle Public Utilities' project combined the construction of a flood detention pond with the restoration of the watershed habitat. Shaped by the local community, the design incorporates open space, public art, environmental education and recycling goals (a pedestrian bridge over the pond is made of recycled plastic). The project was damaged in the winter storms of 1996-1997 while under construction and received FEMA reimbursement for repair work.

- **Fast-Track Permitting for Home Retrofits**

The Department of Design Construction & Land Use (DCLU) has adopted updated standards for seismic retrofitting of homes and a streamlined process for obtaining permits. Using generic retrofit solutions for older, wood-frame houses has allowed building permits to be reviewed and approved more quickly. This initiative is part of Seattle Project Impact's Home Retrofit Program, which encourages homeowners to structurally retrofit their homes to protect against earthquake-caused damage.

- **Base Isolation and the Myrtle Street Water Tanks**

Seattle Public Utilities undertook an innovative project to protect the local water supply from earthquake damage. Among the many water tanks slated for upgrade in Seattle, the Myrtle Street elevated tanks have been singled out for a unique fix.

*6 lines of text redacted. This record has been prepared, assembled or is maintained to prevent, mitigate or respond to criminal terrorist acts. This record is a specific and unique vulnerability response and deployment plan to protect the Myrtle Street Water Tanks. Public disclosure of this record would have a substantial likelihood of threatening public safety. This portion is exempt from disclosure under RCW Section 42.17.310(1)(ww) of the Public Disclosure Act, RCW 42.17. 250 et seq.*

Once the base-isolation retrofit is complete, the Myrtle Street tanks will be the only ones of their kind in the country. This project offers an example of how new technology can be used to allow aging infrastructure to continue to serve the community.

- **Protecting Electricity Transmission Towers at Boulder Creek**

During the November 1995 floods, a logjam caused Boulder Creek to change its course. The creek moved 150 feet to the west, coming within just 85 feet of two transmission towers that are integral to the area's power system grid. Seattle City Light engineers feared that if the creek could move so far in one storm, another similar storm could erode the foundations of the towers and cause them to fail. Rather than simply repair the towers, project engineers devised a unique solution to protect the towers against future damage.

*2 lines of text redacted. This record has been prepared, assembled or is maintained to prevent, mitigate or respond to criminal terrorist acts. This record is a specific and unique vulnerability response and deployment plan to protect the Electricity Transmission Towers at Boulder Creek. Public disclosure of this record would have a substantial likelihood of threatening public safety. This portion is exempt from disclosure under RCW Section 42.17.310(1)(ww) of the Public Disclosure Act, RCW 42.17. 250 et seq.*

This option was chosen over alternate plans either to relocate the towers or build an earth berm, both of which would have been approximately four times as expensive and more disruptive. The City received FEMA and State funding for this project.

#### Mitigation in and around the City

The following are some of the other hazard-specific mitigation measures being implemented in our metropolitan area:

#### Earthquakes

- **I-5 interstate retrofit** (*Washington State Department of Transportation*)
- **Harborview Hospital retrofit** (*King County*). A recent study indicates that Harborview, home to the region's premier trauma center, requires structural retrofit to withstand earthquakes. The retrofit will be financed through a county bond issue.
- Construction of the **State Emergency Operations Center building** using base-isolation (*State of Washington*)
- Upgrade of downtown public buildings. Both the **Municipal Building** and the **Public Safety Building** are being replaced by new structures built to current seismic code. The **Arctic Building**, because of its historic value, is slated for seismic bracing.
- **Bridges** (*Dept. of Transportation*). Many of Seattle's bridges have been retrofitted, including the Fremont, University and Ballard bridges.

#### Landslides

- **Steep slope retaining walls** (*Dept. of Transportation*). Numerous retaining walls have been built around the City to stabilize landslide-prone slopes.
- **Critical Areas Ordinance** (*DCLU*). This ordinance, initially passed in 1992, limits construction in landslide-prone areas.

- **Landslide hazard mapping (DCLU).** Work is underway on a comprehensive new set of landslide hazard maps, combining existing landslide records with data on rainfall and soil characteristics. This project is the cooperative work of U. S. Geological Society (*USGS*), the private engineering firm of Shannon & Wilson, and the City's DCLU under the umbrella of Seattle Project Impact.

#### Flooding

- Meadowbrook detention pond (*Seattle Public Utilities*)
- Tolt Reservoir spillway (*Seattle Public Utilities*)

## REGIONAL, STATE & FEDERAL COOPERATION

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The City is cultivating regional partnerships on a variety of fronts as part of its effort to make Seattle the best prepared city in America. Working with regional, state, and federal partners, the City is striving to create an effective intelligence system that supports a strategy of preparation, deterrence, and detection. The SPD Criminal Intelligence Section has specific responsibility for the production of intelligence regarding terrorism and other organized criminal activity in a constitutionally sound manner.

#### **Regional and State partnerships include:**

##### Local Emergency Planning Committee (LEPC)

At the end of 2002, Seattle established its own Local Emergency Planning Committee (LEPC); prior to 2002, Seattle had been part of the King County LEPC. The LEPC is comprised of emergency response officials, and representatives of environmental and citizen groups, industry and other interested parties. The purpose of the LEPC is to facilitate community preparedness to respond to and prepare for handling hazardous materials. One of the first goals of the LEPC is to develop an educational program on Shelter in Place.

Shelter In Place is a plan to follow when certain kinds of emergencies happen in a community. These emergencies might include hazardous materials spills or releases, or events that may affect the air quality in the area, making it unsafe to be outside. In these situations, it is safer to stay indoors until the wind blows the material away. The main purpose of a Shelter-In-Place plan is to protect people from airborne chemicals and vapors.

##### Regional Planning with King County

The EPB has participated in a regional disaster plan development for several years. The City has provided support for the overall plan content and has assured that the regional document is consistent with the City's legal obligations as a jurisdiction in King County, while maintaining the City's commitment to being a good neighbor to surrounding jurisdictions.

##### King County Emergency Management Advisory Committee

Another regional initiative is the City's participation in the King County Emergency Management Advisory Committee (EMAC) and its Homeland Security Sub-Committee. Since



January 2003, the Assistant Chief of the EPB has been the City's representative on this Committee and its subcommittee, which serves as a conduit for homeland security grant funds passed down through the state. Seattle's participation on this committee is essential, both to protect the City's interests, and to ensure that Seattle's preparedness efforts blend well into regional plans.

The City also is working closely with local jurisdictions to ensure effective mutual aid support in the event of an emergency. As part of this effort, the TOPOFF2 planning team developed a number of training initiatives covering ICS command and control, as well as weapons of mass destruction (WMD). The EPB will produce or sponsor joint disaster training for all City departments to ensure that all participants in a unified command are able to work together effectively. The City also is working with other local area jurisdictions on a communications interoperability plan. This plan will allow agencies to speak directly to each other in the event of a large-scale disaster or terrorist attack. This interoperability will decrease confusion during an incident and increase effectiveness of the responders.

#### Partnership with the Skilled Trades Industry

The Fire Department is working with members of the skilled trades industry (e.g. iron workers or crane operators) to pilot a program to use them to assist in the first hours after a crisis (e.g. helping to move heavy wreckage after an explosion).

#### Seattle Project Impact

All of the Seattle Project Impact programs were designed to be exported and expanded beyond the City boundaries. For instance, Emergency Management leads the Regional Home Retrofit committee coordinating participating building officials with updates and program progress. 19 jurisdictions are currently participating in the program and revised pre-engineered plans in 2002.

#### Public Health and Hospitals

The Fire Department HazMat Team regularly partners with Seattle-King County Public Health in responding to hazardous materials callouts. In addition, the Washington Hospital Association is partnering with the City on several levels. Out of the First Responder Grant Funding, \$2 million was allocated for decontamination sets for 23 hospitals across the State including six in King County. The HazMat teams and the hospitals use the same type of equipment allowing them to better support each other.

#### Washington State Committee on Terrorism & Anti-Terrorism Information Center

The City has been involved in statewide initiatives through the Washington State Committee on Terrorism (COT). This committee's responsibilities include ensuring that there is an effective mechanism to assess and disseminate risk and threat information as well as developing a coordinated statewide terrorism intelligence system. The result is a recommendation to create the Washington Anti-Terrorism Information Center. This Center will be responsible for the collation and analysis of all terrorism-related information in Washington State. It will be a joint partnership of local, state and federal agencies, the first of its kind in the United States. At present, certain restrictions in the City's Investigations Ordinance, which is currently under review, may preclude Seattle's full participation in the foregoing intelligence initiatives.

## **National task forces and projects include:**

*4 lines of text and header redacted. This record has been prepared, assembled or is maintained to prevent, mitigate or respond to criminal terrorist acts. This record is a specific and unique response or deployment plan for the detection of airborne biological agents. Public disclosure of this record would have a substantial likelihood of threatening public safety. This portion is exempt from disclosure under RCW Section 42.17.310(1)(ww) of the Public Disclosure Act, RCW 42.17. 250 et seq.*

### Center for Disease Control Partnership

Because of Seattle's experience with the Metropolitan Medical Response Team (MMRT), it was selected to partner with the Center for Disease Control in a pilot program to distribute chemical antidotes. Only three sites across the country were picked to participate in this program: Seattle, New York City, and North Dakota.

### Gilmore Commission

The Gilmore Commission is a national advisory panel that is assessing the capabilities for responding to terrorist incidents in the U.S. involving weapons of mass destruction. The Commission will examine response capabilities at the federal, state, and local levels with a particular emphasis on the latter two. Deputy Chief A.D. Vickery from the Seattle Fire Department is one of the 20 Gilmore Commission members.

### Joint Terrorism Task Force (JTTF) Participation

The FBI Joint Terrorism Task Force (JTTF) is a primary source of information for the City on expected terrorist activity. The Bureau receives regular updates from its assigned detective, as well as from supervisory FBI personnel. Such information is critical to protecting the city and preventing or minimizing terrorist attack.

### Interagency Board (IAB) for Equipment Standardization and Interoperability

Responding to growing concerns about the nation's ability to defend against weapons of mass destruction terrorism, the Attorney General of the United States sanctioned the creation of an interagency board to ensure equipment standardization and interoperability, to encourage research and development of advanced response technologies, and to assist first responders at the state and local levels in establishing and maintaining a robust crisis and consequence management capability. The purpose is to standardize the equipment used by local, state, and federal agencies to respond to weapons of mass destruction. This standardization will allow teams from different jurisdictions to work together in responding to a catastrophe. Deputy Chief A.D. Vickery from the Seattle Fire Department is co-chair of this national board.

### LINC

Seattle is the first city in the nation to participate in a National Nuclear Security Administration (NNSA) pilot project to help local communities better plan for and respond to releases of chemical or biological agents. Under the initiative, local agencies will be able to access the NNSA's National Atmospheric Release Advisory Center (NARAC) at Lawrence Livermore National Laboratory (LLNL) in California, which predicts chemical, biological and nuclear plumes. The program, called the Local Integration of NARAC with Cities (LINC), is a tool for

agencies to use in emergency planning and response. The objective is to provide local government agencies with an advanced operational atmospheric plume prediction capability that can be integrated with appropriate federal agency support for homeland security applications.

When a hazardous material is accidentally released into the atmosphere, NARAC scientists can map the probable spread of contamination in time for an emergency manager to decide if taking protective action is necessary. With the LINC program, initial predictions using the end user's computer are available in less than a minute, while fully automated NARAC central system predictions can be delivered in five to 10 minutes. NARAC predictions can easily be distributed to multiple users such as local, state and federal government agencies. In addition, NARAC staff are on call around the clock to provide scientific and technical assistance and training.

The program allows multiple jurisdictions to effectively share information about the areas and populations that could be affected by a release. Prompt predictions must be available during an event so that first responders can determine what protective actions need to be taken, what critical facilities may be at risk and safe locations where incident command posts can be set up. LINC has the potential to save lives by arming first responders with a powerful tool that allows them to correctly chart the path of airborne materials and to quickly plan an appropriate response.

In the initial stages of the pilot project, NARAC tools and services will be integrated with existing Seattle technology. The systems will be tested, evaluated and the operational capability demonstrated for emergency preparedness and response to chemical or biological urban terrorism. Training and customized support for exercises, special events and general emergencies will also be provided under the program.

Other examples of these types of partnerships include:

- Kennedy School of Government – Executive Session on Domestic Preparedness
- National Institute of Justice – Project Responder Senior Advisory Group
- Senior Advisory Group for Law Enforcement (Deputy Fire Chief A.D. Vickery will be the first firefighter in this group).

#### Federal Funding

On April 8, 2003, the Department of Homeland Security announced that Seattle was one of only seven cities across the country to receive funding to help the City prepare for and respond to threats or incidents of terrorism. Seattle will receive \$11.2 million of the total \$100 million the Department awarded to cities. The money will be disbursed directly to the City. The Department of Homeland Security chose the cities based on several factors including population density, critical infrastructure and threat or vulnerability assessment. On May 14, 2003, the Department of Homeland Security awarded Seattle an additional \$18.18 million; the purpose of the grant funds is to enhance the security of urban areas. Money from this grant will be disbursed to the State and then the State will distribute it to Seattle and its contiguous counties and emergency mutual aid partners.

The City of Seattle spent \$6.6 million on homeland security through 2002 and expects to spend \$7 million in 2003. Projects included:

- \$1.4 million by City Light to improve security measures at dams, substations, and headquarters
- \$1.2 million by the Seattle Police Department to provide increased security at federal buildings and airports; bomb threat call-outs; protection of bridges, shorelines and tunnels; and homeland security equipment and planning
- \$1.2 million by the Seattle Fire Department to deploy additional staff for emergency units and reconnaissance teams
- \$1.2 million by the Seattle Public Utilities Department to increase patrols around facilities, security response and planning, and various capital improvements to improve security at its facilities